

California Regional Water Quality Control Board
Santa Ana Region

Order No. 01-75

Waste Discharge Requirements

for

U.S. Army Corps of Engineers & San Bernardino County Flood Control District
San Timoteo Creek Reach 3B Flood Control Project
San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. In 1988, the U.S. Congress authorized a project for flood control along San Timoteo Creek as part of the Santa Ana River Mainstem Flood Control Project. San Timoteo Creek is tributary to the Santa Ana River. When completed, the San Timoteo Creek flood control facilities will provide 100 year flood protection in the Cities of Loma Linda, Colton, and San Bernardino; portions of the City of Redlands; and unincorporated portions of San Bernardino County. San Timoteo Creek is approximately 7 miles long. For project planning purposes, the Creek is subdivided into Reach 1 (0.7 mile), 2 (1.9 miles), 3A (0.5 mile) and 3B (3.9 miles). The total length of San Timoteo Creek that is planned for modification is approximately 5.81 miles (3.1 miles already modified).
2. The U.S. Army Corps of Engineers, Los Angeles District (Corps) and the San Bernardino County Flood Control District (SBCFCD) (hereinafter dischargers) propose to complete channel modifications along Reach 3B of San Timoteo Creek. This project will start from the upstream terminus of Reach 3A on San Timoteo Creek, which is located 400 feet upstream of Barton Road, and terminate at 4,000 feet upstream of the San Timoteo Canyon Road crossing. The total length of creek modifications is 14,300 feet and the project footprint is approximately 108.5 acres.
3. In September 1994, the Regional Board issued a conditional water quality standards certification for the San Timoteo flood control project pursuant to Section 401 of the Clean Water Act, as requested by the Corps and SBCFCD in accordance with Section 404 of the Clean Water Act. In part, the water quality standards certification stipulated that the project proponent must implement the recommendations of the U.S. Fish and Wildlife Service (U.S. F&WS) as described in the August 1994 Draft Fish and Wildlife Coordination Act Report. This report recommended that the Creek bottom be soft bottom (earthen) instead of the proposed concrete lining of the entire section of the Creek. Contrary to the certification requirements and recommendations of the U.S. F&WS, the Corps constructed and completed a 3.1 mile section of the San Timoteo Creek project from the Santa Ana River confluence to a point approximately 400 feet upstream of Barton Road in Loma Linda using the original project design of a concrete-bottomed channel. This completed length of the Creek project is referred to as Reaches 1, 2, and 3A.

4. To protect water quality standards, it is appropriate to require that the dischargers implement the terms and conditions stipulated in the U.S. F&WS June 14, 2001 Biological Opinion, including but not limited to:
 - a. With the concurrence of U.S. F&W Service and CDF&G, monetary contribution of \$1,620,000 will be made to a suitable agency/party with demonstrated expertise in executing habitat mitigation projects (including habitat acquisition, restoration and management) for use within the San Timoteo Creek watershed. Habitat acquisition, restoration, and management activities funded by the contribution will be determined by Corps and/or SBCFCD in consultation with the U.S. F&WS and CDFG and outlined in a Memorandum of Agreement (MOA). The MOA will define the responsibilities of each agency and the work to be completed within San Timoteo Creek with the funds. Use of these funds must be for areas outside of current mitigation sites in San Timoteo Creek, for example, Seven Oaks Dam mitigation sites;
 - b. In the event that a suitable arrangement for assignment of \$1.62 million cannot be made, the Corps and/or SBCFCD shall restore and preserve 34.56 acres of disturbed wetland/riparian areas along the Santa Ana River between Waterman Avenue and approximately 1,300 feet upstream of Tippecanoe Avenue. This measure will involve restoration of historical wetland values by establishing native wetland/riparian habitat in the outer portions of the channel bottom within 50- to 60-foot-wide areas, and on the adjacent floodplain shelf south of the river and west of Orange Show Road bridge. This area will be protected in perpetuity via a conservation easement. Flood control maintenance in the area will be approved by U.S. F&W Service prior to the maintenance action.
5. Additional environmental analysis by the dischargers was necessary to consider the Reach 3B project alternatives. The Corps is the Federal lead agency responsible for complying with the National Environmental Policy Act (NEPA), and the SBCFCD is the local lead agency and project proponent responsible for complying with the California Environmental Quality Act (CEQA). SBCFCD is also responsible for funding a portion of the project costs for planning, design and construction, lands, easements, right-of-ways, and relocations. SBCFCD is also responsible for the maintenance of the modifications once construction activities are completed. The Corps and SBCFCD submitted a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to comply with NEPA and CEQA. On December 19, 2000, the San Bernardino County Board of Supervisors certified the EIR for Reach 3B of the San Timoteo Creek flood control project.
6. Because of the significant changes in the Reach 3B project, on November 2, 1999, the Corps/ SBCFCD submitted a new request for a Section 401 water quality standards certification for the project construction and modifications along Reach 3B of San Timoteo Creek, as well as future maintenance of all the San Timoteo Creek channel modifications. In compliance with the California Environmental Quality Act, an environmental impact report (EIR) for Reach 3B of the San Timoteo Creek flood control project was certified by the San Bernardino County Board of Supervisors on December 19, 2000.

7. The proposed project will extend from the upstream terminus of reach 3A on San Timoteo Creek, which is located 400 feet upstream of Barton Road, to 4,000 feet upstream of the San Timoteo Canyon Road crossing. The total length is 14,300 feet and the project footprint is about 108.5 acres. The proposed project will affect approximately 22.9 acres of unvegetated waters of the United States, 69.4 acres of uplands and developed areas, and 16.2 acres of wetlands, for a total of 108.5 acres. Of that total, 5.6 acres of sensitive uplands will be affected, including both alluvial and upland Riversidean sage scrub and elderberry savanna. Sensitive wetlands affected include a total of 16.2 acres of southern cottonwood willow riparian forest, southern willow scrub, and mulefat scrub. The modified Reach 3B project Includes:
 - a. 1,200 feet of parapet walls on top of the existing channel along Reach 3A;
 - b. A 1400-foot long transitional concrete channel connecting to Reach 3A;
 - c. 18 soft bottom, gentle sloped, sediment basins, separated by 18 drop structures with access ramps;
 - d. Planting of riparian habitat within a 30-foot wide strip in the invert of the creekbed on both sides of the sediment basins;
 - e. Planting riparian and upland transitional vegetation in the basins with soil-covered soil cement side slopes;
 - f. Approximately 210,000 square feet of webbed cellular confinement bank lining/geotextile material would be used on the soil cover of the side slopes adjacent to some of the basins;
 - g. Upstream inlet of soil cement bank protection;
 - h. 20-foot-wide maintenance access road/trail easement planted;
 - i. Fencing, for safety-related purposes, in select areas within the corridor;
 - j. Replacement of the Beaumont Avenue Bridge;
 - k. Updated recreation plan for the overall project which incorporates recreational opportunities, including a 20-foot-wide trail/maintenance road, with ramp access to the basins, and rest areas.
 - l. 20-foot-wide environmental/vegetated upland corridor;
 - m. Aesthetic treatment of the side slopes where soil does not cover the soil cement side slopes;
 - n. Mitigation to offset impacts to biological resources;
 - o. Excavation of a 40-foot channel from Alessandro Road to a point about 1800 feet downstream. From that point downstream to the sediment basins inlet, the low flow channel would be 20 feet wide.
 - p. Future long-term maintenance of the constructed facilities.
8. On November 2, 1999, the Corps/ SBCFCD submitted to the Regional Board a new request for a Section 401 water quality standards certification for the project construction along Reach 3B of San Timoteo Creek, as well as future maintenance of all the San Timoteo Creek channel modifications.
9. Given the dischargers failure to comply with the conditions of the 401 certification for the first phase of this project (Reaches 1, 2, and 3A), it is appropriate to issue waste discharge requirements for the Reach 3B project to assure water quality and beneficial use protection.

10. This Order constitutes the State of California review process and permitting of the San Timoteo Creek flood control project pursuant to CWA Section 401 (33 USC 1341).
11. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan identifies water quality objectives and beneficial uses of waters in the Santa Ana Region.
12. The beneficial uses of San Timoteo Creek include:
 - a. Agricultural supply,
 - b. Groundwater recharge,
 - c. Contact recreational use,
 - d. Non-contact recreation use,
 - e. Warm freshwater habitat, and
 - f. Wildlife habitat.
13. The beneficial uses of the Santa Ana River, Reach 5 include:
 - a. Agricultural supply,
 - b. Groundwater recharge,
 - c. Water contact recreation,
 - d. Non-contact water recreation,
 - e. Warm freshwater habitat,
 - f. Wildlife habitat, and
 - g. Rare, threatened, or endangered species.
14. The requirements contained in this Order are necessary to implement the Basin Plan.
15. On June 14, 2001, the U.S. F&WS issued a Biological Opinion for the Reach 3B portion of the San Timoteo flood control project. To assure compliance with water quality standards, it is appropriate to require the dischargers to comply with the terms and conditions that are stipulated in the Biological Opinion. These terms and conditions include specific monitoring and reporting requirements.
16. On April 25, 2001, SBCFCD applied for a California Department of Fish & Game (CDF&G) Code Section 1601 Streambed Alteration Agreement (SAA). The application indicates that an application for a CDF&G Code Section 2081 Incidental Take Permit (ITP) is also pending. To assure compliance with water quality standards, it is appropriate to require that the dischargers comply with the terms of the 1601 SAA and 2081 ITP.
17. The Board has notified the dischargers and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for public hearing and opportunity to submit their written views and recommendations.

18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the dischargers in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS:

1. Neither the project nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.
2. The groundwater in the vicinity of the project shall not be degraded.

B. PROHIBITIONS:

1. Construction equipment shall not be stored within the streambeds. There shall be no fueling, lubrication and maintenance of construction equipment within 500 feet of waters of the State. At stream crossings, the disturbance of the streambed and banks required for construction equipment shall be kept to a minimum.
2. No waste material shall be discharged to any drainage areas, channels, or streams. Spoil sites shall not be located within any streams, or in areas where it could be washed into any surface water body.
3. The discharge of silt, sand, clay, or other earthen materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.
4. The direct discharge of wastes, including rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plains is prohibited.
5. The discharge of oils or other floating materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.

C. RECEIVING WATER LIMITATIONS:

1. No activity associated with the excavation procedures nor deposition of fill shall cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board, as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board may revise this Order in accordance with such more stringent standards.

2. Excavation or filling activities shall not cause the dissolved oxygen in the receiving waters to be depressed below 5.0 mg/l. When natural dissolved oxygen concentrations are less than 5.0 mg/l, the discharge shall not cause a further depression.
3. Excavation or filling activities shall not cause the background natural turbidity (in Nephelometric Turbidity Units, NTUs) in the receiving waters to be increased by values greater than the following at a distance of 100 feet from the excavation or filling activity:

| Natural Turbidity | Maximum Increase |
|----------------------|------------------|
| 0-50 NTU | 20% |
| 50-100 NTU | 10 NTU |
| Greater than 100 NTU | 10% |

D. PROVISIONS:

1. The dischargers shall comply with all the requirements and provisions of this Order immediately upon adoption.
2. The dischargers shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating and construction personnel shall be familiar with its content.
3. The dischargers shall comply with Monitoring and Reporting Program No. 01-75 as issued by the Executive Officer. The monitoring and reporting program may be revised at any time during the term of this Order, and may include a reduction or an increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.
4. The dischargers shall implement the terms and conditions stipulated in the U.S. F&WS June 14, 2001 Biological Opinion.
5. The dischargers shall implement the terms and conditions of the California Department of Fish and Game Code (CDF&G) Section 1601 Streambed Alteration Agreement and the term and conditions of CDF&G Code Section 2081 Incidental Take Permit.
6. The dischargers shall notify in writing and by phone the Regional Board, the U.S. F&WS, and the California Department of Fish and Game three weeks before any maintenance operation in San Timoteo Creek is implemented.

7. If surface flow is present in any stream, all necessary precautions shall be taken to insure water quality protection. If cofferdams, detention basins, sedimentation traps, evaporation ponds or other construction techniques are to be installed within the waters of the State, the project proponent shall contact the California Department of Fish and Game and the Regional Board Executive Officer prior to installation of such devices. Any stream diversion required during the project implementation shall be with the prior approval of the Department of Fish and Game.
8. The dischargers shall implement rules for handling hazardous materials to prevent spills and provide controlled storage areas away from the Creek. Petroleum products, concrete, asphalt or other coating materials, and other hazardous materials shall be prevented from contaminating soil or entering surface waters.
9. The dischargers shall report any discharge of waste that may endanger health or the environment. Such information shall be provided to the Executive Officer (909-782-4130) and the Office of Emergency Services (800-852-7550), if appropriate, as soon as the dischargers becomes aware of the circumstances. A written report shall be submitted within five (5) days of the time the dischargers becomes aware of the circumstances and shall contain a description of the discharge and its cause; the period of discharge, including exact dates and times and, if the discharge has not been corrected, the anticipated time to reduce, eliminate, and prevent recurrence of the discharge.
10. The discharger must comply with all of the requirements of this Order. Any violation of this Order constitutes a violation of the California Water Code, and is grounds for enforcement action, termination of this Order, revocation and re-issuance of this Order, denial of an application for re-issuance of this Order, or a combination thereof.
11. The discharger shall take all reasonable steps to:
 - a. minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
 - b. minimize any adverse impact to receiving waters resulting from noncompliance with any requirements specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
12. The dischargers shall report promptly to the Board any material change in the character, location, and/or volume of the discharge.
13. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
14. This Order does not convey any property rights of any sort, or any exclusive privilege.

15. The California Water Code Section 13268(d)(2) provides that any person who violates an order of the Regional Board is subject to civil penalties of up to \$25,000 per day of violation.
16. The Regional Board and other authorized representatives shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this Order;
 - b. Access to copy any records that are kept under the requirements of this Order;
 - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. To photograph, sample and monitor for the purpose of assuring compliance with this Order.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 26, 2001.

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. 01-75

For

U.S. Army Corps of Engineers & San Bernardino County Flood Control District
San Timoteo Creek Reach 3B Flood Control Project
San Bernardino County

A. General Monitoring Requirements:

1. During routine maintenance operations, the type and volumes of materials removed from sediment basins and hauled offsite shall be estimated and recorded on a daily basis. The locations where the material is excavated and disposed of shall be recorded.
2. Weekly, the location and area disturbed shall be estimated and recorded on a permanent log.
3. Daily, when water flows in the Creek, visual observations shall be made for turbidity plumes resulting from construction, excavation and/or filling operations within the streambed. The extent of turbidity plumes shall be recorded in a logbook.

B. Reporting:

A monitoring report shall be submitted on the 30th day of each month and shall include all information collected in accordance with this monitoring and reporting program for the previous month, including:

1. The estimated volume of material, in cubic yards, excavated and/or filled during the previous month. The volume hauled away for disposal shall also be reported. If no material is dredged or filled during the reporting period, a report to that effect shall be submitted in lieu of a monitoring report.
2. For every item where the waste discharge requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
3. To ensure compliance with the U.S. F&W Service June 14, 2001 Biological Opinion, the Regional Board shall be furnished a electronic copy (Pdf or MS Word format) of the following reports:
 - a. One and one-half months after the awarding of the project construction contract, the dischargers shall submit a copy of the construction schedule to the Regional Board.

- b. One month prior to any habitat creation, restoration and revegetation at any site in Reach 3B, the dischargers shall submit the final habitat creation, restoration, and revegetation plan. This plan must include quantitative performance criteria that can be measured to determine when creation, restoration, and/or revegetation are successful, such as those outlined in the "Mitigation and Revegetation Plan for the San Timoteo Creek Reach 3B Flood Control Project."
- c. Two weeks prior to vegetation clearing or ground disturbing activities in Reach 3B, the dischargers shall submit the name(s), address(es), and phone number(s) of the biological monitor(s) contracted for project implementation. Prior to vegetation clearing or ground disturbing activities in or near habitat for listed species, monitors shall provide a report to the Regional Board verifying that the limits of construction have been properly staked and are readily identifiable.
- d. The dischargers shall submit documentation that the proposed acquisition of 25 acres of floodplain upstream of the construction footprint has been initiated, including a conservation area management plan that describes actions and funding assurances that will be implemented to ensure that the proposed conservation easements are recorded, identify the entity(s) accepting the easements, and provide for any necessary long-term management of the conservation area. This documentation shall be provided by construction completion, and the dischargers shall ensure that, at the time of acquisition, the area has habitat value and function equal or superior to its current condition.
- e. Within 2 years of the start of construction, the dischargers shall submit documentation that the proposed 6 conservation credits in a conservation bank or other area approved by the U.S. F&W Service has been acquired. In addition, the dischargers shall implement a conservation area management plan that describes actions and funding assurances that will be implemented to ensure that the proposed conservation easements are recorded, identify the entity(s) accepting the easements, and provide for any necessary long-term management of the conservation area.
- f. The dischargers shall submit quarterly reports that summarize environmental compliance activities during the previous month within 10 days of the end of the month during the implementation of the proposed action. The first quarterly report shall be prepared within 3 months of the beginning of surface-disturbing activities and subsequent reports shall be prepared for any quarter during which the biological monitor determines that monitoring is necessary for the protection of sensitive biological resources. Should the project not be in compliance with terms and conditions of the Biological Opinion, then monthly reports shall be required until compliance is achieved. At a minimum, each quarterly report should include the following information:
 - (1) A listing of areas and activities monitored during the reporting quarter;
 - (2) Dates and attendees of worker environmental awareness training;

- (3) Estimates of habitat disturbed, by vegetation type and disturbance type (i.e., permanent, temporary);
- (4) Any observations of listed species or their sign on site or in the vicinity of construction activities;
- (5) Known occurrences of incidental take;
- (6) A summary of pre-construction surveys;
- (7) Updates on the implementation and completion of the proposed action, to include construction and monitoring activities planned for the following quarter, and any anticipated changes in the project description or implementation schedule;
- (8) Non-compliance/incident reports and the resolution of each reported situation;
- (9) Information regarding the monitoring and effectiveness of creation and restoration activities;
- (10) Any other pertinent data concerning success in meeting conservation measures outlined in the project description of the biological opinion or the terms and conditions of the incidental take statement, and an explanation of failure to meet such measures, if any;
- (11) An evaluation of the efficacy of the conservation measures and terms and conditions at avoiding and minimizing incidental take; and
- (12) pertinent recommendations.

The reports shall include high-quality, well-labeled maps or GIS coverages that depict the precise location(s) of project activities to date, the location of known, suspected, or potential biological resources (including nests) on or near construction areas, the location of observations of sensitive species or their sign on or near construction areas, and a delineation of the major vegetation communities on and adjacent to construction activities. All maps shall have a title, date, scale, legend, and north arrow.

- g. The dischargers shall submit quarterly monitoring reports for revegetation and restoration areas for the first year, and an annual report thereafter, until all habitat is successfully created or restored in the proposed conservation areas, and any areas temporarily disturbed are successfully revegetated. At a minimum, each report shall include the following information:

- (1) A description of the creation and restoration activities and when they were conducted;
- (2) A description of the existing conditions of creation and restoration sites, including descriptions of vegetation composition, weed species and erosion problems;
- (3) Qualitative and quantitative monitoring data related to performance standards;
- (4) Weather conditions and the response of creation and restoration areas to changes in weather conditions;
- (5) Any observations of listed or proposed species or their sign on restoration areas;

- (6) A discussion of any problems encountered during creation and restoration;
and
 - (7) Remedial measures (e.g., weed control, trash removal) that were
implemented to correct problems or deficiencies.
- h. Annually by February 15 of the following year, the dischargers shall submit a
report that summarizes how the project is in compliance with the reasonable and
prudent measures and the terms and conditions of the Biological Opinion, for the
duration of construction of the project and/or the completion of conservation
commitments (e.g., successful creation and restoration). Each report shall
summarize the information contained in the monthly reports for that year.

All reports shall be signed by a responsible officer or duly authorized representative of the
discharger and shall be submitted under penalty of perjury.

Ordered by: _____

Gerard J. Thibeault
Executive Officer

October 26, 2001

California Regional Water Quality Control Board
Santa Ana Region

October 26, 2001

ITEM: 5

SUBJECT: Waste Discharge Requirements for the U.S. Army Corps of Engineers & San Bernardino County Flood Control District, San Timoteo Creek Reach 3B Flood Control Project - Order No. 01-75

DISCUSSION:

San Timoteo Creek is tributary to the Santa Ana River, Reach 5. Historically, the Creek flowed intermittently but due to irrigation runoff and the tertiary treated wastewater discharges from the Yucaipa Valley Water District and the City of Beaumont sewage treatment plants, the Creek now flows throughout the year. Flows originate in the San Bernardino Mountains above the town of Beaumont in Riverside County as two major tributaries, Noble Creek and Little San Gorgonio Creek. These two creeks join west of Beaumont and flow through San Timoteo Canyon and the proposed project area. The Creek proceeds through broad, moderately coarse-textured, well-drained alluvial soils that are currently used for irrigated and dryland crops, primarily citrus. The Creek crosses the San Bernardino County line just downstream from its confluence with Yucaipa Creek and Live Oak Canyon. San Timoteo Creek is approximately 7 miles long. For U.S. Corps of Engineers (Corps) and San Bernardino County Flood Control District (SBCFCD) project planning purposes, the creek is subdivided into Reach 1 (0.7 mile), 2 (1.9 miles), 3A (0.5 mile) and 3B (3.9 miles).

From 1862 to 1978, about 15 recorded destructive floods resulting from peak storm flows have occurred. In February 1969, a 90-year flood event (estimated flows at 15, 000 cubic feet per second) occurred and resulted in the greatest devastation among the recorded floods and mudflows, including \$4 million in damage, destruction of 30 homes, and one death. Peak storm flows break out of the channel at the mouth of San Timoteo Canyon, spread out over the alluvial fan and flood much of the Cities of Loma Linda, San Bernardino, and Colton, as well as portions of the City of Redlands and unincorporated areas of San Bernardino County.

In 1988, the U.S. Congress authorized a project for flood control along San Timoteo Creek as part of the Santa Ana River Mainstem Flood Control Project. When completed, the San Timoteo Creek flood control structures will provide 100 year flood protection in the Cities of Loma Linda, Colton, and San Bernardino; portions of the City of Redlands; and unincorporated portions of San Bernardino County.

In September 1994, the Regional Board issued water quality standards certification for the San Timoteo flood control project pursuant to Section 401 of the Clean Water Act, as requested by the Corps and SBCFCD in accordance with Section 404 of the Clean Water Act. The water quality standards certification stipulated in part, that the project proponent must implement the recommendations of the U.S. Fish and Wildlife Service (U.S. F&WS) as described in the August 1994 Draft Fish and Wildlife Coordination Act Report. This report recommended that the Creek bottom be soft bottom (earthen) instead of the proposed concrete lining of that section of the Creek. Contrary to the certification requirements and recommendations of the U.S. F&WS, the Corps

constructed and completed a 3.1 mile section of the San Timoteo Creek project from the Santa Ana River confluence to a point approximately 400 feet upstream of Barton Road in Loma Linda, using the original project design of a concrete-bottomed channel. Starting at the confluence with the Santa Ana River, the Creek channel is rectangular for approximately the first mile and trapezoidal for the next two miles. This length of the Creek is referred to as Reaches 1, 2, and 3A.

During the construction along Reaches 1, 2, and 3A of San Timoteo Creek, public and resource agency opposition to the extension of the concrete lined channel into Reach 3B of the Creek arose. The opposition was centered on the aesthetics of the concrete lined channel, and the potential adverse effects of the project on wildlife, vegetation, recreation, and groundwater recharge. Consequently, the San Bernardino County Board of Supervisors requested the Corps to evaluate alternatives to the upstream, Reach 3B portion of the flood control project. The construction of the Reach 3B project was delayed, and the flood protection features were redesigned. The Corps and SBCFCD indicate that to finalize the necessary modifications required for adequate flood protection of existing land uses and structures within the 100-year floodplain of the San Timoteo Creek study area, completion of the project along Reach 3B is needed. Additionally, the capture of the sediment load in the upstream reach of the Creek is essential to avoid damage to the already constructed portions of the project along Reach 1, 2, 3A of the Creek and downstream reaches of the Santa Ana River.

Reach 3B of the project was redeveloped and redesigned in response to these public and agency concerns regarding various environmental resources. Specifically, the design involves minimizing the use of concrete and maximizing the use of the sediment basin concept to allow a softer appearing channel along most of the reach. The redesign is intended to improve the project area aesthetic quality, biological diversity, recreational opportunities, and groundwater recharge over that proposed within the currently approved plan.

Because of the significant changes in the Reach 3B project, on November 2, 1999, the Corps/SBCFCD submitted a new request for a Section 401 water quality standards certification for the project construction and modifications along Reach 3B of San Timoteo Creek, as well as future maintenance of all the San Timoteo Creek channel modifications. In compliance with the California Environmental Quality Act, an environmental impact report (EIR) for Reach 3B of the San Timoteo Creek flood control project was certified by the San Bernardino County Board of Supervisors on December 19, 2000.

The proposed project would extend from the upstream terminus of Reach 3A on San Timoteo Creek, which is located 400 feet upstream of Barton Road, to 4,000 feet upstream of the San Timoteo Canyon Road crossing. The total length of the project is 14,300 feet and the project footprint is about 108.5 acres. The proposed project will affect approximately 22.9 acres of unvegetated waters of the United States, 69.4 acres of uplands and developed areas, and 16.2 acres of wetlands, for a total of 108.5 acres. Of that total, 5.6 acres of sensitive uplands will be affected, including both alluvial and upland Riversidean sage scrub and elderberry savanna. Sensitive wetlands affected include a total of 16.2 acres of southern cottonwood willow riparian forest, southern willow scrub, and mulefat scrub. The modified project consists of:

1. Parapet walls on top of 1200 feet of the existing channel along Reach 3A. Additional capacity would be achieved by adding the parapet walls at the top of the existing 1200-foot concrete section, beginning approximately 400 feet upstream of Barton Road. The walls would be up to 5.1 feet high, six to eight inches thick, with footings up to 12 inches wide.
2. A 1400-foot long transitional concrete channel connecting to Reach 3A. This transitional channel is needed to direct flows from Reach 3B into the already built portion of the Creek project. The transitional channel will begin at approximately 400 feet upstream of Barton Road. The upstream terminus of the proposed channel would be near California Street. The channel would have a 30-foot-wide concrete invert and 2:1 side slopes.
3. 18 soft bottom, gentle sloped, sediment basins, separated by 18 drop structures with access ramps. The basins are designed to store 470 acre-feet of sediment. This includes the 100-year sediment load of 370 acre-feet plus 100 acre-feet of antecedent sediment. The basins are soft bottom to allow vegetation growth. Within the basins, the Creek is intended to meander. The drop structure outlet pipes are staggered to help create a low flow meandering effect. Water flowing into the basins would be allowed to percolate into the groundwater.

The side slopes of most of the basins would be lined with soil cement on a 1:1 slope. The soil cement would be covered with a layer of soil on a 3:1 slope, wherever possible. On the south side of the Creek, near California Street, the sediment basin would be finished with soil at a 5:1 slope. Soil depth would be approximately 2 to 15 feet and would follow natural contours. The soil layer on the side slopes would be planted with upland and riparian transitional vegetation. Appropriate native vegetation would be planted in these areas to provide erosion control, enhance aesthetics, and provide native habitat for wildlife.

4. Planting of riparian habitat within a 30-foot wide strip in the invert of the creek bed on both sides of the basins.
5. Approximately 210,000 square feet of webbed cellular confinement bank lining/geotextile material would be used on the soil cover of the side slopes in basins upstream of San Timoteo Canyon Road Bridge.
6. Upstream inlet of soil cement bank protection. An inlet consisting of soil cement bank protection would extend 700 feet upstream of the most upstream drop structure on the south side and 350 feet on the north side. The inlet would guide flows into the most upstream sediment basin. The soil cement would be less than six feet thick with a toe down of 15 feet, and would line the banks to a height of three feet above the 100-year flood water surface elevation. The inlet surface would be at existing grade. The downstream end of the inlet would be the crest of the most upstream drop structure, which is at the existing channel invert.

7. 20-foot-wide maintenance access road/trail easement. Downstream of San Timoteo Canyon Road Bridge, the easement would be provided along the south bank of the transition and sediment basins. Upstream of San Timoteo Canyon Road Bridge, the easement would be located on the north side of the Creek to the inlet. The inside 12 feet would be surfaced with six inches of aggregate base course; the outside eight feet would be soil and native upland landscaping. Access to the easement would occur from San Timoteo Canyon Road and Beaumont Avenue. The easement would continue under Beaumont Avenue Bridge and have vertical clearances. The 20-foot-wide corridor would be planted with native drought-tolerant vegetation, including, but not limited to, fourwing saltbush, Mesa bushmallow, laurel sumac, California poppy, and sages. No trees would be allowed to grow on the inside 12 feet of the corridor to allow access for emergency vehicles; however, shrubs and grasses would be planted in this area. Existing native plant species along the historic winery property would be incorporated. A temporary low-flow automatic irrigation/watering system would be provided for plant establishment. In areas where the environmental corridor cuts into the existing hillside, the outer 8 feet would be sloped up to meet the hillside at no more than a 3:1 slope.
8. Fencing, for safety-related purposes, in select areas within the corridor.
9. Replacement of the Beaumont Avenue Bridge (as a local betterment).
10. Updated recreation plan for the overall project which incorporates recreational opportunities, including a 20-foot-wide trail/maintenance road, with ramp access to the basins, and rest areas.
11. Aesthetic treatment of the side slopes where soil does not cover the soil cement side slopes.
12. Excavation of a 40-foot channel from Alessandro Road to a point about 1800 feet downstream. From that point downstream to the sediment basins inlet, the low flow channel would be 20 feet wide.
13. Future long-term maintenance of the constructed facilities. Operations and maintenance activities are anticipated to involve clearing debris and sediment after a storm, similar to current activities. Operation, maintenance, repair, replacement, and rehabilitation activities for flood control purposes would include, but not be limited to, the issuance of permits, periodic inspections, removal of sediment, debris and some vegetation, repair of eroded areas, replacement of the soil layer on top of the soil cement side slopes, repair of damaged structures, and maintenance of all non-flood control-related features and facilities. Maintenance activities will be performed by SBCFCD.

Typical maintenance activities for concrete-lined channels includes cleaning the channel bottom to remove accumulated deposits, debris, or obstacles that may impede flows. Cleaning and repair of side drain inlets; erosion repair of the access roads or vegetated areas. Vegetated areas may also need periodic manipulation to stimulate growth. The access road will be maintained as well as any fencing for public safety or access control. Various other items are necessary such as weeding, observation of any structural concerns such as settlement or cracking, and monitoring of structure functions during flood events.

Inspection of the flood control facilities would be performed by individuals on foot or in vehicles operating on maintenance roads, within the sediment basins, and in other areas as appropriate. Semiannual inspection of the sediment basins is expected in the fall before the rainy season begins to ensure that basins are in working order, and after the rainy season to check for any damage incurred during storm flows and to determine if sediment must be removed. Depending on the severity of the weather, other inspections may be required throughout the year. The following is a description of the proposed maintenance plan.

14. Mitigation to offset impacts to biological resources. The following measures have been incorporated into the project description to avoid, minimize, or offset adverse effects to the vireo and flycatcher, the gnatcatcher and its designated critical habitat, and the San Bernardino Kangaroo Rat (SBKR) and its proposed critical habitat:
 - a. Clearing of riparian vegetation will occur between August 30 and March 15 to avoid the vireo and flycatcher breeding season.
 - b. Construction and maintenance activities within or adjacent to habitat for vireo, flycatcher, and gnatcatcher will be conducted outside the breeding season, or noise abatement measures will be implemented and biological monitors employed to ensure noise levels do not exceed 60 decibels in or near habitat during the breeding season.
 - c. Clearing of Riversidean sage scrub, other coastal sage scrub, and elderberry savanna will occur between September 1 and February 15 to avoid the gnatcatcher breeding season.
 - d. Stockpile and excavations sites will be watered twice, and unpaved roads will be watered 3 times daily to reduce fugitive dust during construction.
 - e. A 20-foot-wide vegetated strip ("corridor"), connecting with the strip planted alongside reaches 1, 2, and 3A, will be planted along the top of the south bank of the project up to the San Timoteo Canyon Road Bridge. Upstream of San Timoteo Canyon Road bridge, this corridor will continue along the north bank. The inner 12 feet of the corridor would be planted with native upland shrub species to allow for emergency vehicle access, while the outer 8 feet will also include native upland tree species. The total acreage of the proposed corridor is 6.3 acres. An additional 5 acres along the soil-backfilled side slopes of the sediment detention basins will be planted with native upland plant species. These measures are included to offset impacts to 5.63 acres of sensitive upland habitats, provide habitat for wildlife movement, and for its aesthetic appeal.
 - f. An additional 12 acres along the soil-backfilled side slopes of the sediment detention basins would be planted with native upland plant species, and be contiguous with upland side slope plantings.

- g. Approximately 25 acres of floodplain upstream of project terminus on the south side of the creek will be purchased and protected in perpetuity with a conservation easement. No flood control activity will be done in this area except to protect the railroad line to the south, two existing, developed properties to the north near Alessandro Road, and to maintain a low flow channel within the flood control right-of-way. The area will have invasive nonnative plants removed, especially giant reed (*Arundo donax*) and will be spot planted with native riparian plant species for a 5-year period.
- h. Approximately 12 acres of native riparian and/or transitional riparian/upland vegetation will be planted within the sediment detention basins. On each side of the basin, plantings will be done in a 30-foot strip on the basin bottom and extend 10 feet up the basin side slope. Flood control maintenance in these planted areas will be done only after large devastating floods. However, that type of maintenance would require vegetation and sediment removal in this 40-foot strip. Sediment and vegetation will not be actively restored after such maintenance.
- i. Any flood control maintenance activities that need to be conducted during the vireo and flycatcher breeding season will only be conducted after consulting with and concurrence from U.S. F&WS and CDFG.
- j. To minimize take of SBKR in the form of death or injury, a trapping program will precede pre-construction clearing and post-construction maintenance of suitable SBKR habitat. Within 2 months prior to ground disturbing activities, an SBKR protocol survey will be conducted by a Service-permitted biologist. Trapping locations will be selected at the discretion of the permitted biologist, in coordination with this office. U.S. F&WS will be notified immediately of any captures of listed or sensitive species, and all captured animals (including other native species) will be relocated, in coordination with U.S. F&WS, to the nearest appropriate site. No vegetation clearing or construction activities will occur until 2 working days (i.e., Monday through Friday, discounting Federal holidays) after U.S. F&WS biologists acknowledge the receipt of these data.
- k. Should SBKR be trapped during pre-construction live-trapping surveys, a 4-foot high silt fence will be installed to a depth of at least one foot along the maximum limits of construction area in all suitable SBKR habitat. The area inside this fencing will again be trapped and any SBKR captured would be relocated outside of the fence, in coordination with U.S. F&WS, to the nearest appropriate site. The aboveground portion of the fence will be angled 20 degrees from vertical, leaning away from the construction area to reduce the ability of mammals to colonize or re-colonize the impact area. The fence will be maintained in place throughout the duration of project construction to minimize take of SBKR during the construction phase and preclude the inadvertent disturbance of outlying areas by construction personnel.

- l. With the concurrence of the U.S. F&WS and CDFG, monetary contribution of \$1,620,000 will be made to an agency/party with demonstrated expertise in executing habitat mitigation projects (including habitat acquisition, restoration and management) for use within the San Timoteo Creek watershed. Habitat acquisition, creation, and management activities funded by the contribution will be determined by U.S. F&WS and CDFG and outlined in a Memorandum of Agreement (MOA). The MOA will define the responsibilities of each agency and the work to be completed within the San Timoteo Creek watershed with the funds. Use of these funds will be for areas outside of current mitigation sites in San Timoteo Creek, for example, Seven Oaks Dam mitigation sites. It is anticipated that the MOA will be finalized prior to construction activities in Reach 3B. Should the habitat restoration or transfer of monies to the designated agency/party not take place within one year of initiation of project construction in Reach 3B, then an additional \$81,000 will be contributed to the habitat acquisition/restoration/management fund. This contingency will be in effect annually, that is, \$81,000 will be contributed for each additional year that habitat restoration or transfer of funds is not completed. In the event that the transfer of the \$1.62 million monetary contribution is infeasible, the Corps/County will restore and protect approximately 34.56 acres of disturbed wetland/riparian areas along along the Santa Ana River between Waterman Avenue and approximately 1,300 feet upstream of Tippecanoe Avenue. This measure would involve restoration of historical wetland values by establishing native wetland/riparian habitat in the outer portions of the channel bottom within 50- to 60-foot-wide areas, and on the adjacent floodplain shelf south of the River and west of Orange Show Road bridge. The area will be protected in perpetuity through a conservation easement. No mowing or low flow channel maintenance associated with pertinent sections of biological opinion 1-6-97-F-32 for a Regional General Permit Authorization to Conduct Routine Maintenance along the Santa Ana River dated April 30, 1998 (as amended November 3, 1999) will be done within this proposed 34.56 acre restoration site on the Santa Ana River.
- m. Six- (6) conservation credits for SBKR will be acquired from a conservation bank or other area approved by the Service to offset the loss of 5.63 acres of project-related impacts to SBKR habitat.

As required, the U.S. F&WS was consulted regarding the biological impacts of the modified project. The U.S. F&WS issued a Biological Opinion on June 14, 2001 that specifies the terms and conditions under which the Corps/SBCFCD must implement the project to protect biological resources (including listed species such as the least Bells' vireo and willow flycatcher) and the wildlife-related beneficial uses of San Timoteo Creek. These terms and conditions include:

1. Reduction of the project footprint, and disturbance within this footprint, to the maximum extent possible.
2. Preparation of a comprehensive best management practices plan for impacts to waters of the United States. The plan must control sedimentation and run-off exacerbated by construction activities.

3. Submittal of a final habitat creation, restoration and revegetation plan that includes quantitative performance criteria for judging the success of implementation of the plan.
4. Oversight of the project by a qualified biological monitor with authority to halt or suspend project activities that may be in violation of the terms and conditions of the Biological Opinion.
5. Submittal of documentation that a \$1.62 million contribution has been transferred to the agency/party selected to execute habitat mitigation projects within the San Timoteo Creek watershed as determined by the U.S. F&WS and CDFG. If this mitigation option is infeasible, the Corps/County shall submit documentation of the restoration and preservation of the proposed 34.56 acres of disturbed wetland/riparian areas along the Santa Ana River between Waterman Avenue and Tippecanoe Avenue.
6. Submittal of documentation regarding the acquisition, and recordation as conservation easements, of 25 acres of floodplain upstream of the construction footprint. At the time of acquisition, this area must have habitat value and function equal to or superior to its current condition.
7. Requirements pertaining to the use, maintenance, storage and fueling of construction equipment.
8. Requirements for the development and implementation of an employee education and awareness program.
9. Monitoring and reporting requirements designed to assure and demonstrate compliance with the terms and conditions of the Biological Opinion.

To implement this project, agreements with the California Department of Fish & Game (CDF&G) are also necessary. These are CDF&G Code Section 1601 Streambed Alteration Agreement (SAA) and Section 2081 Incidental Take Permit (ITP). On April 25, 2001, SBCFCD filed an application for the SAA which is pending. The 1601 SAA application indicates that CDF&G approval of an ITP is also pending.

The proposed project will affect San Timoteo Creek. The beneficial uses of the Creek include agricultural supply, groundwater recharge, water contact recreational use, non-contact recreation use, warm freshwater habitat, and wildlife habitat. The beneficial uses of the Santa Ana River, Reach 5 to which San Timoteo Creek is tributary, include: agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened, or endangered species.

The proposed waste discharge requirements prescribe limits intended to protect water quality and beneficial uses in the Creek and downstream waters. The Order requires the Corps & SBCFCD to implement the recommendations of the U.S. F&WS stipulated in its June 14, 2001 Biological Opinion for the project. Furthermore, the Order requires the Corps & SBCFCD to implement the 1601 Streambed Alteration Agreement with the California Department of Fish and Game.

Attachment "A" shows the Project Area
Attachment "B" shows the General Plan of Reach 3B of the San Timoteo Creek
Attachment "C" shows the Plan Layout of Sedimentation Basins

RECOMMENDATION:

Adopt Order No. 01-75 as presented.

Comments were solicited from the following agencies and parties:

U.S. Environmental Protection Agency, Permits and Enforcement Section – Clyde Morris (W-7-2)
U.S. Army Corps of Engineers, Los Angeles District, Regulatory Branch – Robert S. Joe
U.S. Fish and Wildlife Service, Carlsbad – John Hanlon/Jill Terp
State Water Resources Control Board, Office of the Chief Counsel - Ted Cobb
State Water Resources Control Board, Division of Water Quality - James Kassel
State Water Resources Control Board, Division of Water Quality - Oscar Balaguer
State Department of Health Services, San Bernardino – Kalyanpur Baliga
State Department of Health Services, San Diego
State Department of Water Resources - Glendale
State Department of Fish and Game, Long Beach - Juan Hernandez
San Bernardino County Department of Building and Safety - Leon Reed
San Bernardino County Department of Public Works – Ken Miller/Jim Borcuk
Tri-County Conservation League – Gertrude Hagum/Greg Ballmer
Riverside County Flood Control and Water Conservation District
Santa Ana River Dischargers Association
Santa Ana Watershed Project Authority – Joseph Grindstaff
City of Loma Linda
City of Redlands
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
San Timoteo Greenway Conservancy – Lisa Pierce
Tri-County Conservation League – Jack Bath

Attachment "A"

Staff Report

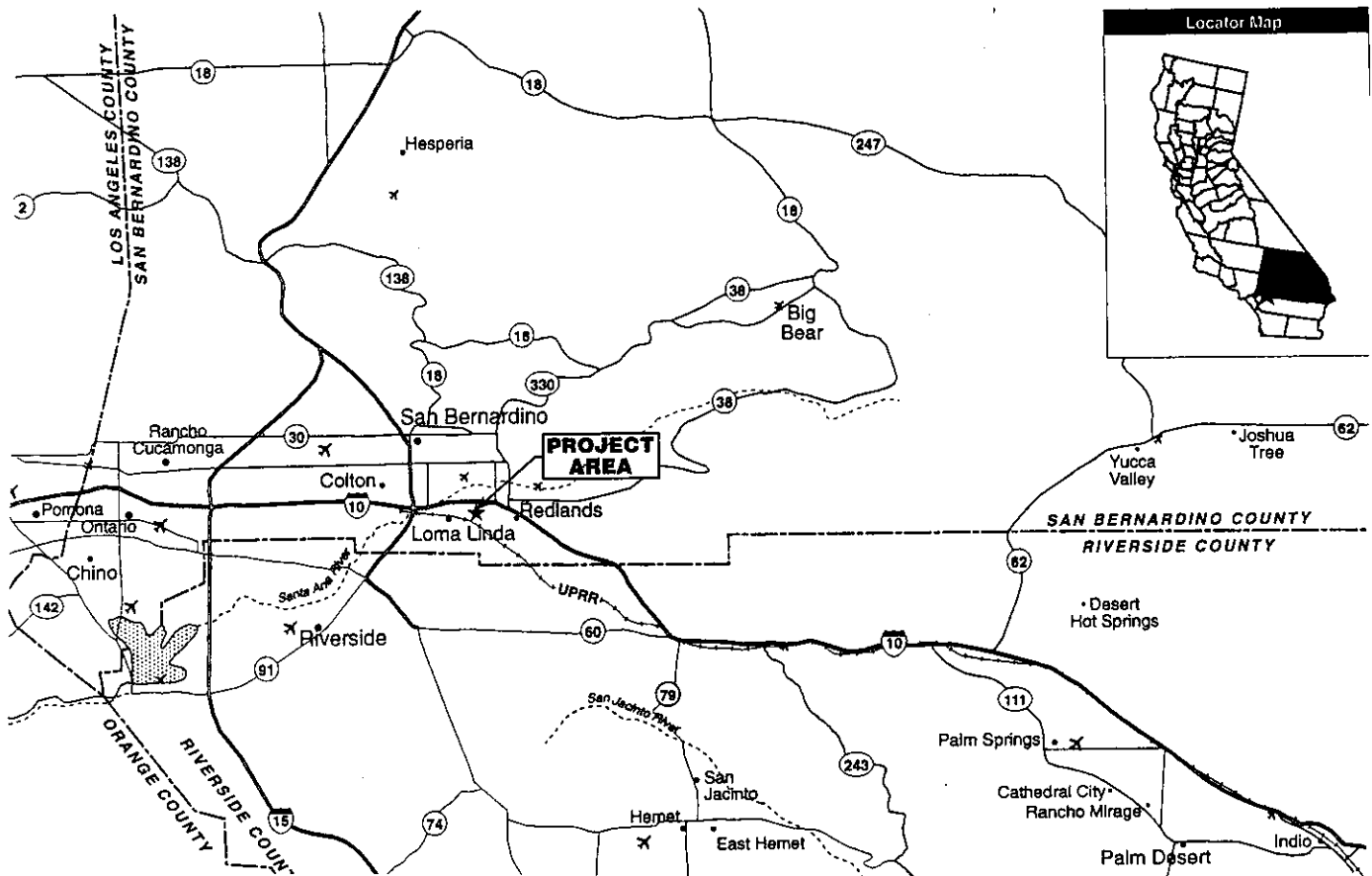
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San Timoteo Creek Reach 3B Flood Control Project

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PROJECT AREA



Attachment "B"

Staff Report

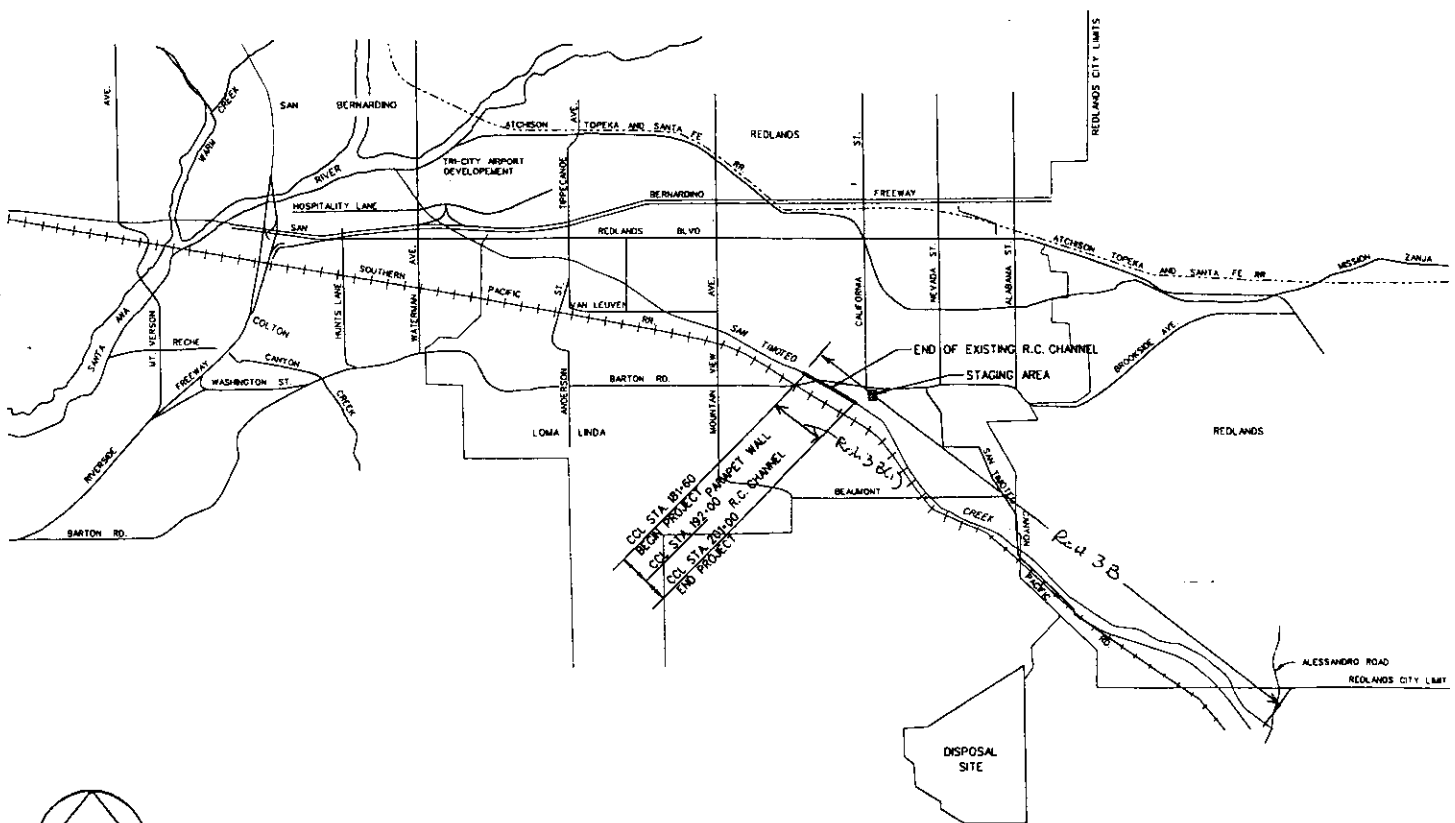
Order No. 01-75

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GENERAL PLAN



Attachment "C"

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PLAN LAYOUT OF SEDIMENTATION BASINS

